

**REMARKS**

Applicants thank the Examiner for the Examiner's comments, which have greatly assisted Applicants in responding. Claims 1-38 are pending in the present  
5 application.

**ALLOWABLE SUBJECT MATTER**

Claims 5-9, 13-17, 24-25, and 33-34 were objected to as being dependent upon  
10 rejected base claims. These Claims were said to be allowable, however, if rewritten in independent form including the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for the allowable subject matter. These dependent  
15 Claims have not been rewritten as independent Claims; such rewriting is unnecessary because their base Claims (as is) are already patentable, for reasons explained below.

**CLAIM REJECTIONS UNDER 35 USC 103**

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Claims 1-2, 10-11, 18-22, 26-32, and 35-38 were rejected under 35 USC 103(a) as being unpatentable over the combination of U.S. Patent No. 5,897,622 to Blinn et al. ("Blinn") in view of U.S. Patent No. 6,182,136 to Ramanathan et al. ("Ramanathan"). Applicants respectfully submit that Blinn and Ramanathan, taken alone or in  
25 combination, fail to teach, suggest, or render obvious the present invention as claimed.

Taking claim 1 as an example, the proposed references, taken alone or in combination, fail to teach the following combination:

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"A method for constructing a query system for use with a body of data, comprising operations of:

- 5 providing a data schema describing entries in a body of data such that  
the entries provide instances of the data schema;  
providing multiple appearance templates each providing instructions for  
computer presentation of on-screen constructs to receive user  
input of query parameters;  
providing multiple subquery generators each comprising machine-  
executable code to prepare machine-executable query  
instructions applying a predetermined logical operation to the  
body of data;  
10 providing multiple control schemas each control schema prescribing  
constituent components of query form controls providing  
instances of that control schema, the prescribed components of  
each control schema comprising:  
specification of at least one appearance template and at least  
15 one subquery generator;  
mapping between the specified appearance template and the  
data schema and between the specified subquery  
generator and the data schema;  
providing one or more query form schemas prescribing constituent  
20 components of corresponding query form annotations that  
provide instances of the query form schemas, said components  
comprising:  
identification of one or more of instances of the control schemas;  
identification of elements of the data schema to be presented in  
25 query results.

Looking at the cited references, Blinn discloses an electronic shopping and  
merchandising system, which includes a dynamic page generator, a configurable  
order processing module, and a database module capable of retrieving data from the  
30 database without regard to its schema. See Abstract.

Considering claim 1 in greater detail, Blinn fails to teach or suggest "providing multiple control schemas each control schema prescribing constituent components of query form controls providing instances of that control schema, the prescribed components of each control schema comprising: specification of at least one appearance template and at least one subquery generator; mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema."

The Office Action cites Blinn's col. 12, line 57 to col. 13, line 45, but this passage merely describes a database module providing an interface and a method for accessing data in existing databases having a variety of schemas. Further, Blinn discloses merchant system data flows for the database module and the dynamic page generator. There is no mention in the paragraph cited of control schemas, each control schema prescribing constituent components of query form controls providing instances of that control schema, the prescribed components of each control schema comprising specification of at least one appearance template and at least one subquery generator. The Office Action also admits that Blinn fails to teach or suggest mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema.

Ramanathan does not remedy any of the deficiencies of Blinn. Ramanathan is only cited for allegedly teaching the mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema. Ramanathan discloses a method and system for modeling services available via a network that include selecting a core service that is to be modeled, forming a discovery template that is specific to the selected core service, and automatically discovering the elements which cooperate to provide the core service. See Abstract. Ramanathan fails to teach or suggest "providing multiple control schemas each control schema prescribing constituent components of query form controls providing instances of that control schema, the prescribed components of each control schema comprising: specification of at least one appearance template and at least one subquery generator; mapping between the specified appearance

template and the data schema and between the specified subquery generator and the data schema." At col. 14, line 39 to col. 16, line 56, Ramanathan teaches at most that the service model template can potentially map the discovered instance into the service model nodes. Ramanathan mentions coincidentally some sort of mapping, but similarities end here. There is no teaching or suggestion of mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema, as claimed in independent Claim 1.

Referring back to Claim 1; Blinn further fails to teach or suggest "providing one or more query form schemas prescribing constituent components of corresponding query form annotations that provide instances of the query form schemas, said components comprising: Identification of one or more of instances of the control schemas; identification of elements of the data schema to be presented in query results." The Office Action cites Blinn's col. 19, lines 36-61, and col. 19 line 62 to col. 20, line 25 to illustrate the teaching of the above limitations. However, looking at Blinn in more detail, the cited paragraphs only disclose actions executed by an action manager to write data into the database and to retrieve an order from the database. The order is passed to an order processing module to be annotated and to be subsequently delivered to a dynamic page generator. Still, these teachings are clearly unrelated to the features claimed in independent Claim 1. Simply absent from Blinn are query form schemas prescribing constituent components of corresponding query form annotations that provide instances of the query form schemas, said components comprising: identification of one or more of instances of the control schemas; identification of elements of the data schema to be presented in query results

Ramanathan does not remedy any of the deficiencies of Blinn. Ramanathan is only cited for allegedly teaching the mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema. Ramanathan fails to teach or suggest "providing one or more query form schemas prescribing constituent components of corresponding query form

annotations that provide instances of the query form schemas, said components comprising: identification of one or more of instances of the control schemas; identification of elements of the data schema to be presented in query results."

- 5 Furthermore Blinn fails to teach or suggest a combination with Ramanathan and Ramanathan fails to teach or suggest a combination with Blinn. It would be impermissible hindsight based on Applicants' own disclosure to incorporate the teaching of Ramanathan into Blinn in order to arrive at the present invention as claimed. Moreover, such a combination would still fail to teach or suggest "providing
- 10 multiple control schemas each control schema prescribing constituent components of query form controls providing instances of that control schema, the prescribed components of each control schema comprising: specification of at least one appearance template and at least one subquery generator; mapping between the specified appearance template and the data schema and between the specified
- 15 subquery generator and the data schema," and "providing one or more query form schemas prescribing constituent components of corresponding query form annotations that provide instances of the query form schemas, said components comprising: identification of one or more of instances of the control schemas; identification of elements of the data schema to be presented in query results," as
- 20 claimed in independent Claim 1.

In view of the foregoing, independent Claim 1 is distinguishable over Blinn in view of Ramanathan, taken alone or in combination, and should be allowed. Further, for similar reasons, independent Claims 10, 11, 18-22, 26-31, 35, and 37-38 are also

25 distinguishable over Blinn in view of Ramanathan, taken alone or in combination, and should also be allowed.

Further, in regard to Claim 26, the Office Action alleges that Blinn/Ramanathan teach a compiler to create web browser compatible representation of the query form annotation. Applicants respectfully disagree for the following reasons. At the cited

30 paragraphs, Blinn only teaches a template parser obtains and parses a template to create a syntax tree, which is a common representation used in the construction of

parsers and compilers. See Col. 10, lines 51-59. Blinn does not teach a compiler (as required by independent Claim 26, for example) to create web-browser-compatible representations of query form annotations. Ramanathan also fails to teach or suggest a compiler to create web browser compatible representation of the query form annotation. Also in the context of Claim 26, and in contradiction to the Office Action, Blinn/Ramanathan fails to show "a run-time engine comprising an assembler to construct queries against the data schema according to query parameters submitted by user completion of the web-browser-compatible representations and a rendering engine to provide web-browser-compatible outputs of query results." Therefore, Claim 26 is further patentable over the applied art of Blinn and Ramanathan, taken alone or in combination, despite the specific treatment of this Claim in the Office Action.

Claims 2, 27, 32, and 36, dependent directly or indirectly from allowable Claims 1, 26, 31, and 35, respectively, are also distinguishable over Blinn and Ramanathan, taken alone or in combination, and should also be allowed at least for the same reasons as stated above. Thus, Applicants respectfully request withdrawal of the rejections and allowance of the Claims.

Claims 3-4, 12, and 23 were rejected under 35 USC 103(a) as being unpatentable over Blinn in view of Ramanathan and further in view of U.S. Patent No. 5,404,295 to Katz ("Katz"). Applicants respectfully submit that Blinn, Ramanathan, and Katz, taken alone or in combination, fail to teach, suggest, or render obvious the present invention as claimed.

Claims 3, 4, 12, and 23, depend directly or indirectly from allowable Claims 1, 11, 22, respectively. Katz is only cited for the disclosure of constructing one or more query form annotations, each annotation comprising an instance of one of the query form schemas, and for the disclosure of constructing the query form annotations as including the operation of constructing the controls. Katz does not remedy any of the deficiencies of Blinn and Ramanathan. Katz fails to teach or suggest "providing multiple control schemas each control schema prescribing constituent components

of query form controls providing instances of that control schema, the prescribed components of each control schema comprising: specification of at least one appearance template and at least one subquery generator; mapping between the specified appearance template and the data schema and between the specified subquery generator and the data schema," and "providing one or more query form schemas prescribing constituent components of corresponding query form annotations that provide instances of the query form schemas, said components comprising: Identification of one or more of instances of the control schemas; identification of elements of the data schema to be presented in query results," as claimed in independent Claim 1.

Thus, Claims 3, 4, 12, and 23; dependent directly or indirectly from allowable Claims 1, 11, 22, respectively, are distinguishable over Blinn, Ramanathan, and Katz, taken alone or in combination, and should also be allowed at least for the same reasons as stated above. Applicants respectfully request withdrawal of the rejections and allowance of the Claims.

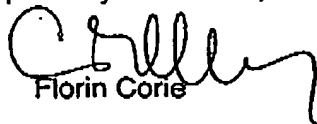
#### CONCLUSION

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Based on the foregoing, Applicants consider the claimed invention to be distinguished from the art of record. Accordingly, Applicants earnestly solicit the Examiner's withdrawal of the rejections raised in the above referenced Office Action, such that a Notice of Allowance is forwarded to Applicant, and the present application is therefore allowed to issue as a United States Patent.

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Respectfully Submitted,

  
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